

RAW SEQUENCE LISTING

The Biotechnology Systems Branch of the Scientific and Technical Information Center (STIC) no errors detected.

Application Serial Number: 10/580,596
Source: IFWOP
Date Processed by STIC: 06/07/2006

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IFWP

RAW SEQUENCE LISTING

PATENT APPLICATION: US/10/580,596

DATE: 06/07/2006

TIME: 11:02:16

Input Set : A:\70325USPCT Seq List.ST25.txt

Output Set: N:\CRF4\06072006\J580596.raw

3 <110> APPLICANT: SYNGENTA PARTICIPATIONS AG
 4 NEGROTTI, David V.
 5 SHOTKOSKI, Frank A.
 6 YU, Wenjin A.
 8 <120> TITLE OF INVENTION: INSECT RESISTANT COTTON PLANTS AND METHODS OF DETECTING THE
 SAME
 10 <130> FILE REFERENCE: 70325USPCT
 C--> 12 <140> CURRENT APPLICATION NUMBER: US/10/580,596
 C--> 12 <141> CURRENT FILING DATE: 2006-05-25
 12 <150> PRIOR APPLICATION NUMBER: PCT/EP2004/012662
 13 <151> PRIOR FILING DATE: 2004-11-09
 15 <150> PRIOR APPLICATION NUMBER: US 60/526,112
 16 <151> PRIOR FILING DATE: 2003-12-01
 18 <160> NUMBER OF SEQ ID NOS: 18
 20 <170> SOFTWARE: PatentIn version 3.2
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 25 <213> ORGANISM: Artificial Sequence
 27 <220> FEATURE:
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 48 <212> TYPE: DNA
 49 <213> ORGANISM: Artificial Sequence
 51 <220> FEATURE:
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 59 <211> LENGTH: 24
 60 <212> TYPE: DNA
 61 <213> ORGANISM: Artificial Sequence
 63 <220> FEATURE:

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 105 cagagcgagc aaatctacta caccacaac atcgtgttcc cgaacgagta cgtgatcacc 120
 107 aagatcgact tcaccaagaa gatgaagacc ctgcgctacg aggtgaccgc caacttctac 180
 109 gacagcagca ccggcggagat cgacctgaac aagaagaagg tggagagcag cgaggccgag 240
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 125 taacagagta gtaagaacag agaagagaga gagtgtgaga tacatgaatt gtcgggcaac 120
 127 aaaaatctg aacatcttac tttagcaaaag agaaagagtt ccgagtctgt agcagaagag 180
 129 tggaggagaaa tttaagcttct tggacttgc aattttccg cctttgaat acttcttcaa 240
 131 tcctcatata ttcttttct atgttacctg aaaacggca ttatctcg cgggttatt 300
 133 ccgggtcaac attttttttgg ttttgagttt ttatctggc ttaataacgc aggcctgaaa 360
 135 taaattcaag gccaactgt tttttttttt aagaagttgc tgtaaaaaaaa aaaaaaaagg 420
 137 aattaacaac aacaacaaaa aaagataaaag aaaataataa caattacttt aattgttagac 480
 139 taaaaaaaaca tagattttat catggaaaaaa agagaaaaaga aataaaaaact tggatcaaaa 540
 141 aaaaacatac agatcttcta attattaact ttcttaaaa attaggtcct ttcccaac 600
 143 aatttagttt agagtttgg aattaaacca aaaagattgt tctaaaaaat actcaaattt 660

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| 147 | ttagagtaga | ttagaatctt | ttatgccaaag | tattgataaa | ttaaatcaag | aagataaaact | 780 |
| 149 | atcataatca | acatgaaattt | aaaagaaaaaa | tctcatatat | agtatttagta | ttctctatata | 840 |
| 151 | atattatgat | tgcttattct | taatgggtt | ggttaaccaa | gacatagct | taatggaaag | 900 |
| 153 | aatctttttt | gaacttttc | cttattgatt | aaattcttct | atagaaaaga | aagaaattat | 960 |
| 155 | ttgaggaaaa | gtatatacaa | aaagaaaaat | agaaaaatgt | cagtgaagca | gatgtatgg | 1020 |
| 157 | atgaccta | atccaccacca | ccataggatg | tttctacttg | agtccgtctt | ttaaaaacgc | 1080 |
| 159 | acggtgaaa | atatgacacg | tatcatatga | ttccttcctt | tagttcgtg | ataataatcc | 1140 |
| 161 | tcaactgata | tcttcctttt | tttgcgttgg | ctaaagatat | tttattctca | ttaatagaaa | 1200 |
| 163 | agacggttt | gggcgttgg | tttgcgtat | aaagaagacc | ttcgtgtgga | agataataat | 1260 |
| 165 | tcatccttc | gtcttttct | gactcttcaa | tctctccaa | agcctaaagc | gatctctgca | 1320 |
| 167 | aatctctcg | gactctct | tcaaggat | atttctgtat | tcttttgc | tttgcgttgc | 1380 |
| 169 | atctgatctc | caattttgt | tatgtggatt | attgaatctt | ttgtataaaat | tgctttgac | 1440 |
| 171 | aatattgttc | gtttcgtaa | tccagcttct | aaatttgtc | ctgattacta | agatatcgat | 1500 |
| 173 | tctgtgtt | tacatctgt | taatttctt | cttgattgt | aaatttaggt | tttcaaggac | 1560 |
| 175 | gatctattca | attttgtt | tttctttgtt | cgattctct | tgttttaggt | ttctttagtt | 1620 |
| 177 | tagatccgtt | tctcttgg | gttgcgttga | tttcttctac | ggctttgtat | ttgtatatgt | 1680 |
| 179 | ttcgtgtt | ggtttctact | tgttctattt | tttttattca | ggtggatcca | ccatgaacaa | 1740 |
| 181 | gaacaacacc | aagctgagca | cccgccccc | gccgagctt | atcgactact | tcaacggcat | 1800 |
| 183 | ctacggctt | gccaccggca | tcaaggacat | catgaacatg | atcttcaaga | ccgacaccgg | 1860 |
| 185 | cggcgtt | accctggacg | agatcctgaa | gaaccagcag | ctgctgaacg | acatcagcgg | 1920 |
| 187 | caagctggac | ggcgtt | gcagcctgaa | cgacactgatc | gcccaggc | acctgaacac | 1980 |
| 189 | cgagctgac | aaggagatcc | ttaagatcgc | caacgacag | aaccagg | tgaacgacgt | 2040 |
| 191 | gaacaacaag | ctggacgcca | tcaacaccat | gctgcgt | tacctgcca | agatcaccag | 2100 |
| 193 | catgctgac | gacgttgc | agcagaacta | cgccctgt | ctgcagatcg | atgtacctgag | 2160 |
| 195 | caagcagct | caggagatca | ggcacaagct | ggacatcatc | aacgttgc | tcctgatcaa | 2220 |
| 197 | cagcaccct | accggatca | ccccggcc | ccagcgtt | aagtacgtt | acgagaagtt | 2280 |
| 199 | cgaagagct | accccgcc | ccgagaccag | cagcaagg | aagaaggc | gcagccggc | 2340 |
| 201 | cgcacatct | gacgttgc | ccgagcttgc | cgagcttgc | aagagcttgc | ccaagaacga | 2400 |
| 203 | cgtggacggc | ttcgagttt | accttgc | ttccacgc | gttgcgtt | gcaacaac | 2460 |
| 205 | gttcggccgc | agcccttgc | agaccggcc | cgagcttgc | accaagg | acgttgc | 2520 |
| 207 | cagcggcgt | gagggtgg | acgttgc | ttccctgt | gttgcgttgc | ccctgcaggc | 2580 |
| 209 | ccaggccctt | ctgaccctg | ccacctgt | caagcttgc | ggcctggcc | acatcgacta | 2640 |
| 211 | caccagcatc | atgaacgagc | acttgc | ggagaagg | gagttccgc | tgaacatct | 2700 |
| 213 | gccgaccct | agcaacacc | tcaacacc | gaactacgc | aaggtaagg | gcagcgtt | 2760 |
| 215 | ggacgccaag | atgtatgtt | aggcttgc | gggcacgc | tttgcgttgc | tgcgtatcg | 2820 |
| 217 | caacgacac | atcaccgt | tgaagggtt | cgaggcca | ctgacatcg | actaccagg | 2880 |
| 219 | ggacaaggac | agcttgcgt | aggttgc | cgccgttgc | gacaagcttgc | tgttccgg | 2940 |
| 221 | ccagacgc | caaacttact | acaccaacaa | catgttgc | ccgttgc | acgttgc | 3000 |
| 223 | caagatcgac | ttcacc | agatgttgc | cctgttgc | gagggttgc | ccacttct | 3060 |
| 225 | cgacacgc | accggcg | tcgacctg | caagaagg | gtggagac | gcgaggcc | 3120 |
| 227 | gttccgc | ctgacgc | acgacgc | cgatcttgc | ccacttgc | tgatcg | 3180 |
| 229 | gacccttct | accccgat | acggcttgg | cctgttgc | gacgagaaca | gccgccttgc | 3240 |
| 231 | caccctgacc | ttgttgc | aggcttgc | gctgttgc | gccaccg | tgagcaacaa | 3300 |
| 233 | ggagaccaag | ctgtatgt | caccgttgc | tttgcgttgc | aacatcg | agaacggc | 3360 |
| 235 | catcgagg | gacaacctt | agccgttgg | ggccaaacaa | aagaacgc | acgttgc | 3420 |
| 237 | caccggccgc | gttgcgtt | ccaaaggcc | gttgcgttgc | aaggacggc | gatcgacca | 3480 |
| 239 | gttccatcg | gacaacgtt | agccgttgc | cgatgttgc | atccgttaca | ccgttgc | 3540 |
| 241 | caagccatcg | attcacc | aggacgagaa | caccgttgc | atccactac | aggacacca | 3600 |

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| 245 | ggcgctgtac | ctgatcctga | agagccagaa | cgcgacgag | gcctggggcg | acaacttcat | 3720 | | | | | | | | | |
| 247 | catcctggag | atcagcccgaa | gcgagaagct | gctgagcccg | gagctgatca | acaccaacaa | 3780 | | | | | | | | | |
| 249 | ctggaccaggc | accggcagca | ccaacatca | cgcaacacc | ctgaccctgt | accaggcgg | 3840 | | | | | | | | | |
| 251 | ccgcggcattc | ctgaagcaga | acctgcagct | ggacagcttc | agcacctacc | gcgtgtactt | 3900 | | | | | | | | | |
| 253 | cagcgtgagc | ggcgacgcca | acgtgcgcatt | ccgcaactcc | cgcgagggtgc | tgttcgagaa | 3960 | | | | | | | | | |
| 255 | gaggtacatg | agcggcgcca | aggacgtgag | cgagatgttc | accaccaagt | tcgagaagga | 4020 | | | | | | | | | |
| 257 | caacttctac | atcgagctga | gccaggcCAA | caacctgtac | ggcgccccga | tcgtgcactt | 4080 | | | | | | | | | |
| 259 | ctacgacgtg | agcatcaagt | aggagctcta | gatccccga | atttccccga | tcgttcaaac | 4140 | | | | | | | | | |
| 261 | atttggcaat | aaagtttctt | aaagattgaat | cctgttgcgg | gtcttgcgat | gattatcata | 4200 | | | | | | | | | |
| 263 | taatttctgt | tgaattacgt | taagcatgt | ataattaaca | tgtaatgcat | gacgttattt | 4260 | | | | | | | | | |
| 265 | atgagatggg | tttttatgt | tagagtcccg | caattataca | ttaatacgc | gatagaaaac | 4320 | | | | | | | | | |
| 267 | aaaatatagc | gogcaacta | ggataaaatta | tcgcgcgcgg | tgtcatctat | gttactagat | 4380 | | | | | | | | | |
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| 286 | Ile | Asp | Tyr | Phe | Asn | Gly | Ile | Tyr | Gly | Phe | Ala | Thr | Gly | Ile | Lys | Asp |
| 287 | | | | | | | 20 | | 25 | | | | | 30 | | |
| 290 | Ile | Met | Asn | Met | Ile | Phe | Lys | Thr | Asp | Thr | Gly | Gly | Asp | Leu | Thr | Leu |
| 291 | | | | | | | 35 | | 40 | | | | | 45 | | |
| 294 | Asp | Glu | Ile | Leu | Lys | Asn | Gln | Gln | Leu | Leu | Asn | Asp | Ile | Ser | Gly | Lys |
| 295 | | | | | | | 50 | | 55 | | | | | 60 | | |
| 298 | Leu | Asp | Gly | Val | Asn | Gly | Ser | Leu | Asn | Asp | Leu | Ile | Ala | Gln | Gly | Asn |
| 299 | | | | | | | 65 | | 70 | | | | | 75 | | 80 |
| 302 | Leu | Asn | Thr | Glu | Leu | Ser | Lys | Glu | Ile | Leu | Lys | Ile | Ala | Asn | Glu | Gln |
| 303 | | | | | | | 85 | | | | 90 | | | | 95 | |
| 306 | Asn | Gln | Val | Leu | Asn | Asp | Val | Asn | Asn | Lys | Leu | Asp | Ala | Ile | Asn | Thr |
| 307 | | | | | | | 100 | | | | 105 | | | | 110 | |
| 310 | Met | Leu | Arg | Val | Tyr | Leu | Pro | Lys | Ile | Thr | Ser | Met | Leu | Ser | Asp | Val |
| 311 | | | | | | | 115 | | | 120 | | | | 125 | | |
| 314 | Met | Lys | Gln | Asn | Tyr | Ala | Leu | Ser | Leu | Gln | Ile | Glu | Tyr | Leu | Ser | Lys |
| 315 | | | | | | | 130 | | | 135 | | | | 140 | | |
| 318 | Gln | Leu | Gln | Glu | Ile | Ser | Asp | Lys | Leu | Asp | Ile | Ile | Asn | Val | Asn | Val |
| 319 | | | | | | | 145 | | | 150 | | | | 155 | | 160 |
| 322 | Leu | Ile | Asn | Ser | Thr | Leu | Thr | Glu | Ile | Thr | Pro | Ala | Tyr | Gln | Arg | Ile |
| 323 | | | | | | | 165 | | | 170 | | | | 175 | | |
| 326 | Lys | Tyr | Val | Asn | Glu | Lys | Phe | Glu | Glu | Leu | Thr | Phe | Ala | Thr | Glu | Thr |
| 327 | | | | | | | 180 | | | 185 | | | | 190 | | |
| 330 | Ser | Ser | Lys | Val | Lys | Lys | Asp | Gly | Ser | Pro | Ala | Asp | Ile | Leu | Asp | Glu |
| 331 | | | | | | | 195 | | | 200 | | | | 205 | | |
| 334 | Leu | Thr | Glu | Leu | Thr | Glu | Leu | Ala | Lys | Ser | Val | Thr | Lys | Asn | Asp | Val |
| 335 | | | | | | | 210 | | | 215 | | | | 220 | | |

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 342 Asn Asn Leu Phe Gly Arg Ser Ala Leu Lys Thr Ala Ser Glu Leu Ile
 343 245 250 255
 346 Thr Lys Glu Asn Val Lys Thr Ser Gly Ser Glu Val Gly Asn Val Tyr
 347 260 265 270
 350 Asn Phe Leu Ile Val Leu Thr Ala Leu Gln Ala Gln Ala Phe Leu Thr
 351 275 280 285
 354 Leu Thr Thr Cys Arg Lys Leu Leu Gly Leu Ala Asp Ile Asp Tyr Thr
 355 290 295 300
 358 Ser Ile Met Asn Glu His Leu Asn Lys Glu Lys Glu Glu Phe Arg Val
 359 305 310 315 320
 362 Asn Ile Leu Pro Thr Leu Ser Asn Thr Phe Ser Asn Pro Asn Tyr Ala
 363 325 330 335
 366 Lys Val Lys Gly Ser Asp Glu Asp Ala Lys Met Ile Val Glu Ala Lys
 367 340 345 350
 370 Pro Gly His Ala Leu Ile Gly Phe Glu Ile Ser Asn Asp Ser Ile Thr
 371 355 360 365
 374 Val Leu Lys Val Tyr Glu Ala Lys Leu Lys Gln Asn Tyr Gln Val Asp
 375 370 375 380
 378 Lys Asp Ser Leu Ser Glu Val Ile Tyr Gly Asp Met Asp Lys Leu Leu
 379 385 390 395 400
 382 Cys Pro Asp Gln Ser Glu Gln Ile Tyr Tyr Thr Asn Asn Ile Val Phe
 383 405 410 415
 386 Pro Asn Glu Tyr Val Ile Thr Lys Ile Asp Phe Thr Lys Lys Met Lys
 387 420 425 430
 390 Thr Leu Arg Tyr Glu Val Thr Ala Asn Phe Tyr Asp Ser Ser Thr Gly
 391 435 440 445
 394 Glu Ile Asp Leu Asn Lys Lys Val Glu Ser Ser Glu Ala Glu Tyr
 395 450 455 460
 398 Arg Thr Leu Ser Ala Asn Asp Asp Gly Val Tyr Met Pro Leu Gly Val
 399 465 470 475 480
 402 Ile Ser Glu Thr Phe Leu Thr Pro Ile Asn Gly Phe Gly Leu Gln Ala
 403 485 490 495
 406 Asp Glu Asn Ser Arg Leu Ile Thr Leu Thr Cys Lys Ser Tyr Leu Arg
 407 500 505 510
 410 Glu Leu Leu Ala Thr Asp Leu Ser Asn Lys Glu Thr Lys Leu Ile
 411 515 520 525
 414 Val Pro Pro Ser Gly Phe Ile Ser Asn Ile Val Glu Asn Gly Ser Ile
 415 530 535 540
 418 Glu Glu Asp Asn Leu Glu Pro Trp Lys Ala Asn Asn Lys Asn Ala Tyr
 419 545 550 555 560
 422 Val Asp His Thr Gly Gly Val Asn Gly Thr Lys Ala Leu Tyr Val His
 423 565 570 575
 426 Lys Asp Gly Gly Ile Ser Gln Phe Ile Gly Asp Lys Leu Lys Pro Lys
 427 580 585 590
 430 Thr Glu Tyr Val Ile Gln Tyr Thr Val Lys Gly Lys Pro Ser Ile His
 431 595 600 605
 434 Leu Lys Asp Glu Asn Thr Gly Tyr Ile His Tyr Glu Asp Thr Asn Asn

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L:12 M:271 C: Current Filing Date differs, Replaced Current Filing Date